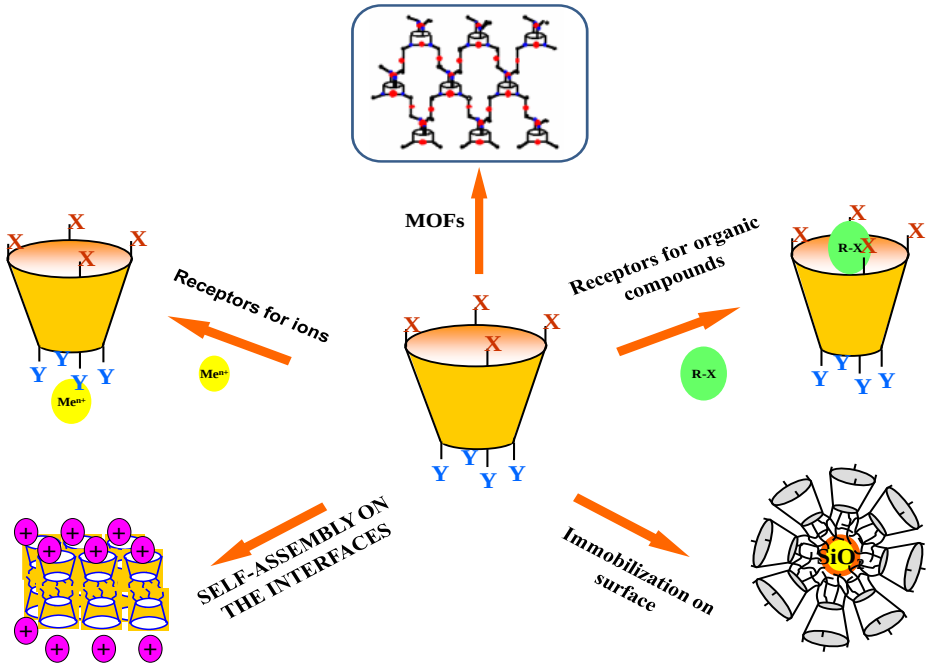

These compounds can be considered as technological platform for nanomaterials design by self-assembly method. Particular attention will be paid to the application of calixarene derivatives for the construction of various supramolecular and nanosystems, devices and smart materials: colloid nanoparticles, catalytic systems, metal-coordinated networks, Langmuir-Blodgett nanolayers, molecular magnets etc.

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M. N. Joy

Innovation Center for Chemical and Pharmaceutical Technologies,
Institute of Chemical Technology,
Ural Federal University,
620002, Yekaterinburg, Mira St., 19,
mnibinjoy@urfu.ru, mnibinjoy@gmail.com

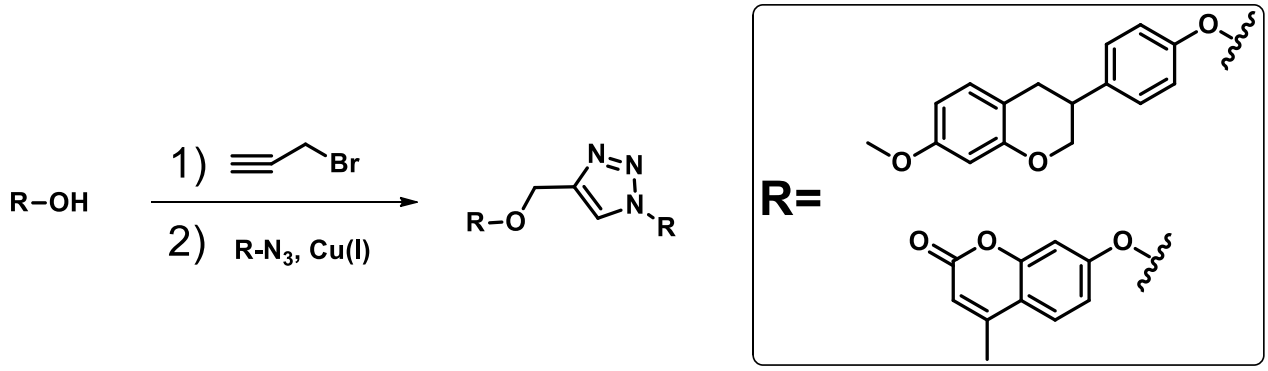
FACILE SYNTHESIS OF DIVERSE 1,2,3-TRIAZOLES LINKED TO COMPLEX HETEROCYCLIC SYSTEMS*

Keywords: cycloaddition, copper, 1,2,3-triazole.

After the independent discovery of copper catalyzed azide-alkyne cycloaddition reaction (CuAAC) by the groups of Meldal and Sharpless, a large variety of

monocyclic, spirocyclic and fused 1,2,3-triazoles have been efficiently synthesized by various researchers and their biological and technical properties were widely studied [1,2]. Among these, the 1,2,3-triazoles linearly connected to other heterocycles were found to exhibit potential pharmacological and fluorophoric properties [3].

The convenient synthesis of a variety of pharmacologically relevant 1,2,3-triazoles derivatives linked to complex heterocyclic systems like coumarin and equol has been achieved [4–7]. The salient features of these developed protocols include: facile one-pot reactions, easy isolation process, good to excellent yield of the desired products and appendage diversity of substituted triazoles (Scheme 1). The obtained triazole products linked to coumarin were found to exhibit potent antimicrobial and antioxidant properties. The evaluation of biological properties of the triazoles linked to equol will be carried out in due course.



Scheme 1. Facile one-pot synthesis of diverse 1,2,3-triazoles

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